



## Packaging Machinery and Equipment

Klaus Jonas  
U.S. Commercial Service Germany  
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### Summary

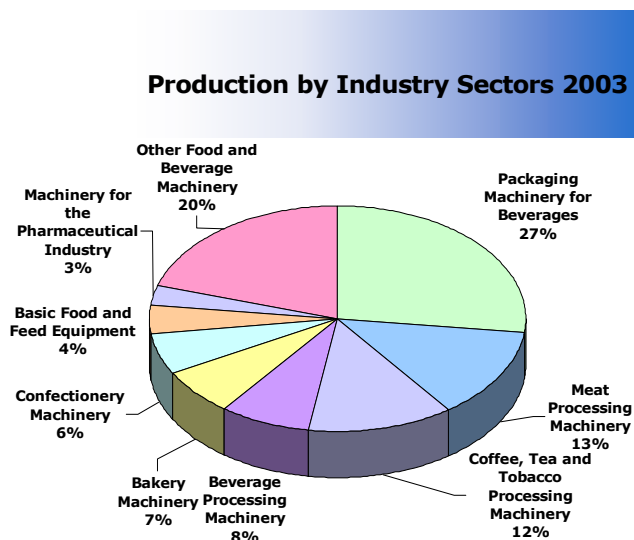
The 2003 German packaging machinery market was valued at USD 3.65 billion (EUR 3.84 billion), up 7% from USD 3.92 billion (EUR 3.26 billion) in 2004. Market analysts expect an increase of 2% to a total of USD 4 billion in 2005. Approximately 650 small and mid-sized companies dominate the packaging machinery industry, employing a total workforce of 58,000.

Best sales opportunities for U.S. packaging machinery manufacturers in Germany exist in the following product segments: Machinery components for cleaning and drying of bottles and other containers; electrical parts and equipment for filling machines; and components and parts for packaging machines. A local presence for successful market entry is essential.

### Market Overview

In 2003 the German packaging machinery market, including food packaging, was valued at USD 3.65 billion (EUR 3.84 billion), compared to USD 3.92 billion (EUR 3.26 billion) in 2004, an increase of 7%. For the year 2005, an increase of 2% to USD 4 billion is expected. About 650 small and mid-sized companies operate in this industry in Germany and employ 58,000 people.

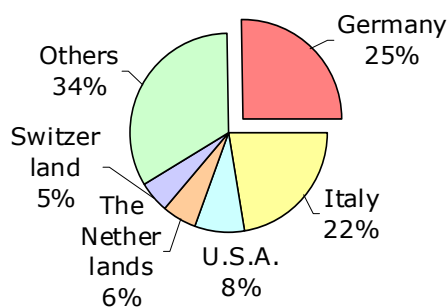
The market can be broken down into nine main sectors as shown below: Packaging machinery for beverages; meat processing machinery; coffee, tea and tobacco processing machinery; beverage processing machinery; bakery machinery; confectionery machinery; basic food and feed packaging equipment; packaging machinery for the pharmaceutical industry; other food and beverage packaging machinery. Not included are converting and printing machines; and packaging materials machines.



The German packaging machinery industry is highly export-driven. In 2004 nearly 80% of all machines and equipment for the production and packaging of food were exported. Germany owned a 25% share of the world's packaging machinery export market in 2003 and ranked no. 1 with Italy (22%) and the United States (8%) second and third.

In 20 of the most important packaging machinery sub-sectors, German packaging machinery manufacturers hold a world market share of almost 30%, followed by Italy, the United States, Switzerland and the Netherlands.

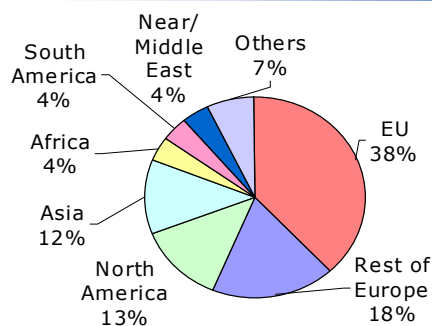
#### World Exports (2003) Packaging Machinery



Total world trade (2003): EUR 19.1 billion

Demand for modern packaging machinery and equipment is on the rise worldwide. According to market analysts, international trade in this market segment increases by 4-5% every year. In 2004, the total world trade with packaging machinery and equipment was valued at over EUR 20 billion. German manufacturers of packaging machinery and equipment cover 25% of global world exports. Expanding exports to Asia have caused an upsurge in the German packaging machinery production. Next to the EU and the rest of Europe, the U.S. market is the third largest market for German packaging machinery exporters.

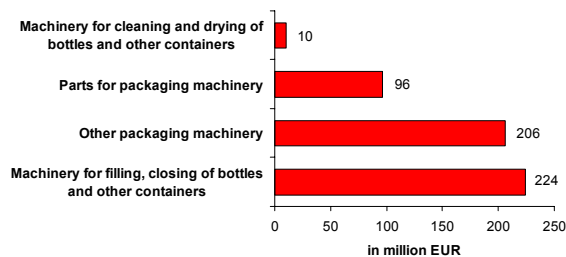
#### German Export Markets Packaging Machinery



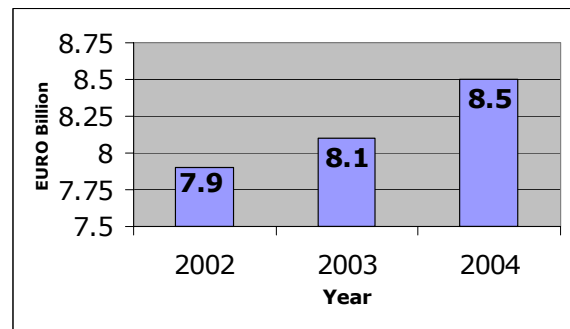
Exports (2003): EUR 4.9 billion

Between 2000 and 2004, German production of packaging machinery increased by 22% to a total of EUR 8.5 billion (USD 10.2 billion). With 24%, the increase for the production of packaging machines was more dynamic than the one for the production of food packaging machines with 19%. For the year 2005, analysts expect a packaging machinery production increase of another 2%.

**German Exports of Packaging Machinery to the U.S. (2004)**

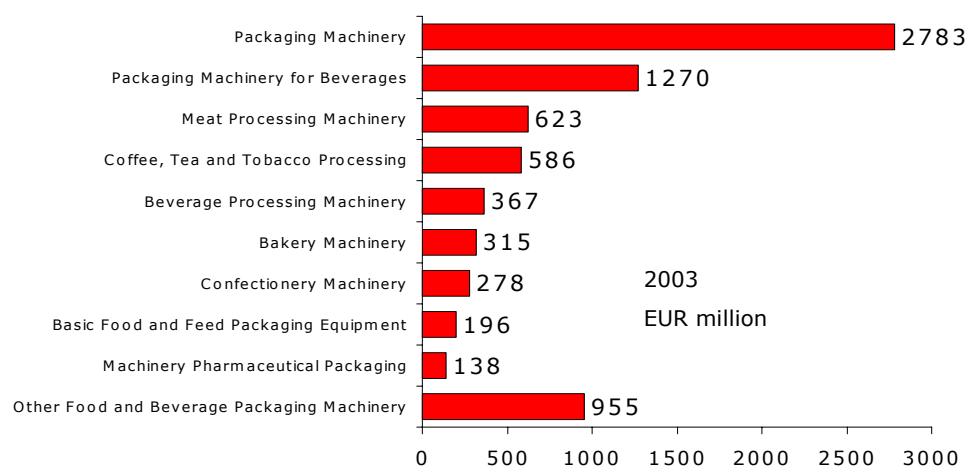


**German Packaging Machinery Production Values 2002-2004**



The total EUR values of the nine major packaging machinery sectors in the year 2003 are listed below:

**Production by Sector Segment**



Source: VDMA

The packaging machinery sector is the leading segment with USD 2.8 billion, followed by beverage packaging machinery with USD 1.3 billion and other food and beverage packaging machinery with USD 955 million.

Global technological advances in the automation of food production, processing, and packaging are growing rapidly. In developed, industrial nations like Germany, replacement or supplement investments will lead to a stable demand for capital goods including packaging machinery.

## **Market Trends**

Changing consumer preferences, environmental laws, high raw material prices, and new technologies require constant realignment with markets.

PMMI, the Packaging Machinery Manufacturers Institute and VDMA, the German Engineering Federation, expect the following trends in the three largest packaging sectors, food; beverages; and chemicals (including pharmaceuticals; personal care; detergents; and paints).

**The beverage industry** will have to observe stricter regulations on recycling and be more subject to environmental issues;

**The cosmetics industry** will see the increasing significance of packaging as a marketing tool;

**The food industry** will witness a strong trend toward convenience food and smaller packaging sizes.

Experts predict extraordinary growth of packaged water sales from 100 billion liters in 2000 to 190 billion liters by 2010. Worldwide, segment sales of PET for bottled drinks are expected to increase from USD 35 billion in 2000 to USD 60 billion by 2010. Amcor PET Packaging, the owner of Schmalbach-Lubeca, confirms this trend, with production increase forecasts of 30% for PET bottles over the next few years.

Biodegradable products have faced a high-production cost barrier. However, analysts expect the following factors to impact positively on the production of biodegradable packaging and machinery in Germany: Increasing oil prices; the amendment to the latest EU Directive 94/62/EC on Packaging and Packaging Waste stipulating that certified biodegradable packaging is exempt from the fees required under the Green Dot Dual System as well as from recycling quotas until 2012; depleting raw material resources; and higher disposal costs for conventional plastics.

The bakery industry requires ovenproof plates or carton, which allow freezing and heating of food with the same material. Further market trends include: Flexible stand bags; thinner foils; shrinking foils; wrapping material with greater strength; label technology for all kinds of packages; durable transportation packages; smaller packages for the pharmaceutical industry combined with innovative wallets; anti-counterfeiting technology; sleeve technology; conservation technologies for cars by spraying artificial foils to supplement waxes and reduce work time; glass bottles with engraved labels; and finally, material savings, e.g., in tinplate technology by using 0.07 mm wall thickness.

The new RFID technology will influence the packaging machinery market and generate purchasing of additional equipment to print, label and read packaging tags. The large retail/cash&carry chains will be market drivers in this segment, with their demand for secondary packaging with traceability and labor cost savings.

## The German Market for Food Processing and Packaging Machinery

USD million				Estimated Average Annual Growth
	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Production	7,500	7,700	10,200	
Imports	937	597	559	+2%
Exports	4,460	4,650	6,840	
Total Market	3,977	3,647	3,919	+2%
Imports from the United States	27.5	30.6	40.8	0-2%
Exchange Rate USD equals EUR	0.95	0.95	1.2	1.2

EUR million				Estimated Average Annual Growth
	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Production	7,900	8,100	8,500	
Imports	941.7	628.4	670.8	+2%
Exports	4,700	4,900	5,700	
Total Market	4,186.3	3,838.9	4,702.8	+2%
Imports from the United States	28.9	32.2	49	+0-2%

Source: VDMA; Federal Statistical Office

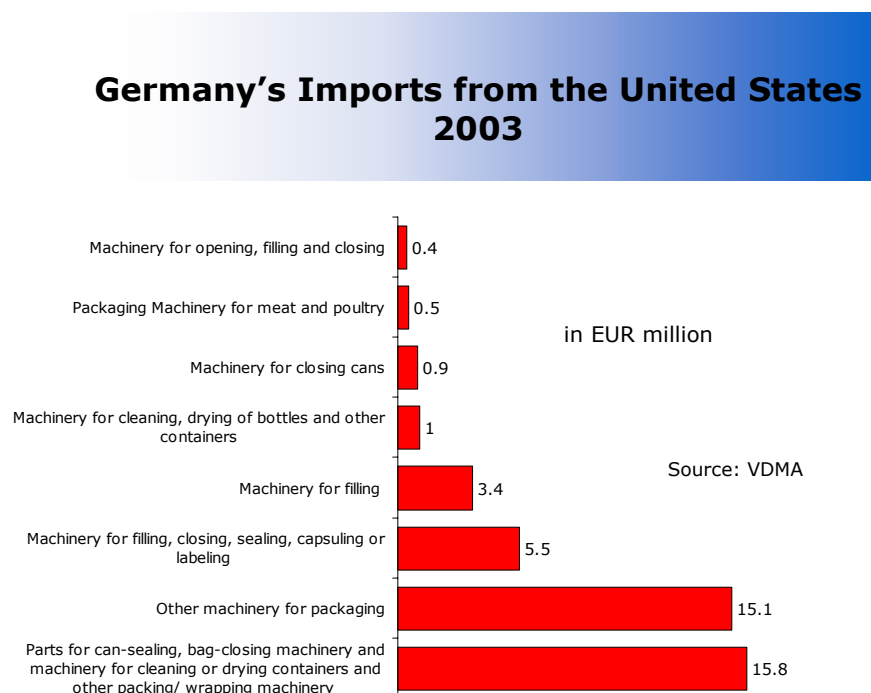
### Import Market

Packaging machinery imports into Germany reached USD 559 million in 2004, with the United States supplying 8% of German market demand. Major other suppliers to the German market were Italy, Switzerland, the United Kingdom, and The Netherlands.

Major imports from the United States were machinery and parts for packaging machinery, listed under HS Codes 8422.22.0000 to 8422.90.90.

- HS 8422.22.0000 – Machines for cleaning and dry of bottles and other containers
- HS 8422.30.0000 – Electrical parts and equipment to fill machines
- HS 8422.40.0000 – Machines for packaging goods
- HS 8422.90.9000 – Parts and equipment for packaging machines

Below chart provides an overview of the potential in the different sector segments.



## Competition

Over 650 companies manufacture packaging machines in Germany. Germany's largest producers of packaging machines include: Bosch; Klöckner Packaging (with Klöckner Hänsel and Klöckner Tevopharm); Schubert; Rovema; Krones AG; Optima; and KHS Maschinen- und Anlagenbau.

Krones; SIG Germany; Klöckner Packaging; Tetra Pak; SASI, and GEI are market leaders in the European packaging machinery market with a combined market share (in terms of sales) of about 40%.

Other major players include (Name of company; annual sales; location in Germany; customer industry):

Multivac Sepp Haggenmueller GmbH & Co., EUR 153 million, Wolfertschwenden; pharmaceutical/medical industry; Rovema Verpackungsmaschinen, EUR 86 million, Fernwald, pharmaceutical/medical industry; Gerhard Schubert GmbH, EUR 81 million, Crailsheim, bakery machinery, packaging machinery for food; Krones AG, EUR 745 million, Neutraubling, beverages and filling machines.

## Best Prospects

The German packaging machinery market is open to innovative packaging and solutions to problems such as: Reducing materials waste; cutting down on energy; lowering emissions; more efficient just-in-time delivery; labeling and printing; product protection. Packaging machinery suppliers, therefore, must stay in touch with their clients, especially in this "conservative" German market. It is not unusual in Germany that the machinery manufacturer visits his customer before, during and after the planning phase.

## **End-Users**

The end users of packaging machinery in the various industries today have to be very flexible to follow market trends. Notable current trends include: a higher demand for pet food packages; a large number of single households and thus, increased demand for prepared meals; blister packaging; intelligent packages; RFID implementation; a higher demand for bio-plastic packaging products in times of increasing oil prices. The end user tends to order the packaging machine very shortly and to request customization. This requires close and regular contact with the customer and a local presence or representative.

## **Market Access**

In addition to the innovative edge of the individual product, successful market entry depends on pricing, on compliance with EU standards and regulations, and effective marketing. It is also essential that the products are labeled with the CE mark, if applicable. The CE Mark is a declaration from the manufacturer indicating that the product complies with all European Union directives and standards applicable to that product class. This mark also indicates the manufacturer's understanding of its own responsibility. Manufacturers interested in having marks of quality placed on their products should contact an independent testing institute, like the "Technischer Überwachungsverein e.V." (TÜV, Technical Inspection Association). TÜVs are private companies set up by various Germany states to inspect and test products for compliance with German safety standards. Individual TÜVs have also been authorized by the German government to test products for compliance with EU legislation, and many have established representative offices in the United States. Much like the Underwriter's Laboratories (UL) in the United States, these institutes examine products and apply the appropriate mark.

German buyers may request additional performance or quality marks, which are not necessarily legally required, but greatly enhance a product's marketing chances. Both EU requirements and the standards for a German quality or performance mark will, in many cases, require a product to be modified. Even if a product does not require modification, it will require testing and certification before it can be marketed. Important marks are the Safety-Tested "Geprüfte Sicherheit" (GS) mark for mechanical products, and the "Verband Deutscher Elektrotechniker" (VDE) mark for electrical components. Neither the "GS" license nor the "VDE" license are mandatory for products sold in Germany. The only exception is for products for use in certain work place applications, where either of these marks are required in order to meet insurance eligibility regulations. A company can obtain information on the VDE mark from the VDE publisher (VDE Verlag GmbH), or directly from the VDE association.

The German organization which compiles the standards for a "GS" mark is the "Deutscher Industrie Normenausschuss - DIN" (German Standards Institute). The TÜV tests for CE Mark and both "VDE" and "GS" licenses. The process for "VDE" certification is the same as that for the "GS" mark. For more detailed information, including a listing of authorized testing institutes, please see Germany's Country Commercial Guide.

### Contact Information - Standards

Detailed information on the German and European regulations for the production and trade of packaging machinery can be obtained from:

National Institute of Standards and Technology,  
National Center for Standards and Certification Information  
NIST North, Room 164  
Gaithersburg, MD 20899  
Phone: 301-975-4040  
Fax: 301-975-1559  
Internet: [www.nist.gov](http://www.nist.gov)

Commercial Service  
Mission to the EU  
40 Boulevard du Regent  
B-1060 Brussels / Belgium  
Phone: +32-2/508-2674  
Fax: +32-2/508-1228  
Internet: [www.buyusa.gov/europeanunion/](http://www.buyusa.gov/europeanunion/)

TÜV – Technischer Überwachungsverein Rheinland  
(German Technical Inspection Association Rhineland / TÜV Rheinland Group)  
Am Grauen Stein  
51105 Köln  
Phone: +49-221-806-0  
Fax: +49-221-806-114  
Internet: [www.de.tuv.com](http://www.de.tuv.com)

## **Custom Tariffs**

U.S. exporters of packaging machines and equipment to Germany will not encounter any trade barriers or quotas. A 1.7% import duty is levied on all product groups and spare parts for packaging machines. In addition, a 16% import turnover tax is payable at the port of entry, which in later distribution stages is passed on to the ultimate end-user as a Value-added Tax (VAT). VAT also applies to domestic products.

The Customs Information Center Frankfurt website offers a searchable customs duty calculator under the heading "TARIC," available in English. For specific duty-related questions U.S. exporters can also contact the Infocenter directly:

Zoll – Infocenter Frankfurt am Main  
(Customs Information Center)  
Hansaallee 141  
60320 Frankfurt am Main  
Phone: +49-69-469976-00  
Fax: +49-69-469976-99  
E-Mail: [info@zoll-infocenter.de](mailto:info@zoll-infocenter.de)  
Internet: [www.zoll-d.de](http://www.zoll-d.de)

## **Market Entry**

The United States represents the third most important supplier country for packaging machinery to Germany. German-U.S. business relations are sometimes hampered by U.S. suppliers having insufficient knowledge of the German market; differences in metric systems; excessively long delivery times; different surfaces for the use of steering and control systems; and slow after-sales service owing to long distances.

Some U.S. suppliers argue that packaging machinery does not require much maintenance and therefore, no local presence is needed. This is a fatal misperception.



The "conservative" German market requires personal contact and immediate availability for regular discussions during the planning process besides other important factors such as personal understanding and reliability.

In addition, experts report that 90% of packaging machines are sold directly from the manufacturers or through manufacturers' representatives. 10% are sold through agents; (stocking) distributors; and also mail order for spare parts such as machine blades; ball bearings; or springs.

A key factor in purchasing decisions is the performance of both the machinery and the manufacturer. This includes reliability, flexibility, and innovation; a thorough knowledge of the specific requirements of the food, beverage, or chemical industries; machinery that is user-friendly and ecologically friendly; quick after-sales service; and a good price-performance ratio. Companies purchase packaging machinery as a result of specific in-house requirements or requirements determined by market trends.

U.S. packaging machinery suppliers interested in entering the German market should be pro-active. They should actively pursue the market and not wait until they receive a request from a German firm for a specific packaging machine. They must establish a local market presence. Competition is steep, with a large number of German niche market packaging manufacturers specializing on flexible and fast customer solutions.

## **Trade Promotion Opportunities**

### Major Trade Publications

Creativ verpacken – [www.creativverpacken.de](http://www.creativverpacken.de)

EUWID Europäischer Wirtschaftsdienst – [www.euwid.de](http://www.euwid.de)

Neue Verpackung – [www.neue-verpackung.de](http://www.neue-verpackung.de)

Packreport – [www.dfv.de](http://www.dfv.de)

Papier + Folien – [www.dfv.de](http://www.dfv.de)

Verpackungsrundschau – [www.verpackungsrundschau.de](http://www.verpackungsrundschau.de)

### Major German Packaging Trade Fairs

In Germany, trade fairs play a major role in product marketing. U.S. companies wishing to penetrate the German market often make their first approach at major trade fairs. For U.S. manufacturers and exporters wishing to sell in Germany (and in Europe) it is important to exhibit at one of Germany's major international fairs. Exhibiting at fairs can bring direct sales, but, more significantly, it can be one of the least expensive ways to test the market's receptivity for U.S. products. Further, the strength and scope of the competition can be assessed and contacts with others "in the trade" can be established. From these contacts, U.S. companies can gather a great deal of valuable information about marketing in Germany and Europe.

A well-planned exhibit at a major German trade fair is an excellent vehicle to promote U.S. products to a German and international trade audience. The following shows are relevant for exporters of U.S. packaging machinery and equipment:

**Anuga FoodTec**, International Food Technology Fair, October 8-12, 2005 (triennial show), [www.koelnmesse.de](http://www.koelnmesse.de) or [www.koelnmessenaftha.com](http://www.koelnmessenaftha.com)

**BRAU Beviale**, European Trade Fair for the Beverage Industry-Raw Materials-Technologies-Logistics-Marketing, November 15-17, 2006 (annual show), [www.nuernbergmesse.de](http://www.nuernbergmesse.de) or [www.concordexpogroup.com](http://www.concordexpogroup.com)

**Drinktec-interbau**, World Fair for Beverage Technology, September 12-17, 2005 (quadrennial show), [www.messe-muenchen.de](http://www.messe-muenchen.de) or [www.munichtradefairs.com](http://www.munichtradefairs.com)

**FachPack + Printpack**, Trade Fair for Packaging and Labeling Technology + Trade Fair for Package Printing and Packaging Supplies Production, September 26-28, 2006 (annual show-not in years of Interpack Düsseldorf), [www.nuernbergmesse.de](http://www.nuernbergmesse.de) or [www.concordexpogroup.com](http://www.concordexpogroup.com)

**IBA, World Market for Baking-Everything for Bakers and Confectioners**, October 3-9, 2006 (triennial show), [www.messe-duesseldorf.de](http://www.messe-duesseldorf.de) or [www.mdna.com](http://www.mdna.com)

**InterCool**, International Trade Fair Frozen Foods, Ice Cream, Refrigeration Technology, September 2006 (biennial show), [www.messe-duesseldorf.de](http://www.messe-duesseldorf.de) or [www.concordexpogroup.com](http://www.concordexpogroup.com)

**InterKondiCa & Gast**, International trade show for confectionery and catering trade, October 25 & 26, 2006 (biennial show), [www.reedexpo.de](http://www.reedexpo.de)

**IFFA/IFFA Delicat**, May 12-17, 2007 (triennial show), [www.messefrankfurt.de](http://www.messefrankfurt.de)

**Interpack**, International Fair Packaging Machinery, Packaging and Confectionery Machinery, April 24-30, 2008 (triennial show), [www.messe-duesseldorf.de](http://www.messe-duesseldorf.de) or [www.mdna.com](http://www.mdna.com)

**Intervitis Interfructa**, International technology trade fair for wine, fruit and fruit juice, April 2007 (triennial show), [www.messe-stuttgart.de](http://www.messe-stuttgart.de) or [www.gaccny.com](http://www.gaccny.com)

**Metpack**, International Trade Fair for Metal Packaging, April 22-26, 2008 (triennial show), <http://www.messe-essen.de/> or <http://www.essentradeshows.com/>

**Packovent**, International Trade Fair for machinery producing packaging materials and their suppliers, converters and printers, September 6-10, 2006 (triennial show) <http://www.pacovent.de/>

**PETpoint**, International trade show for PET bottles, closures and filling equipment, September 12-17, 2005 (triennial show), <http://www.pet-point.net/>

#### Trade Associations

The International Confederation of Paper and Board Converters in Europe (CITPA) – [www.citpa-europe.org](http://www.citpa-europe.org)

Association of German Packaging Engineers – [www.verpackungen.org](http://www.verpackungen.org)

Industrial association for food technology and packaging (IVLV) – <http://www.ivlv.de/>

RG Verpackungen im RKW – [www.rkw.de](http://www.rkw.de)

Paper & Board Processing Industry Association (HPV) – [www.hpv-ev.org](http://www.hpv-ev.org)

Solid Board Case Manufacturers Association (VVK) – [www.vvk.org](http://www.vvk.org)

Board Packages for Liquid Food Industry Association – [www.getraenkekarton.de](http://www.getraenkekarton.de)

Industrieverband Papier- und Folienverpackung e.V. – <http://www.ipv-verpackungen.de/>

Corrugated Board Industry Association – [www.wellpappen-industrie.de](http://www.wellpappen-industrie.de)

Glass Industry Association – [www.bvglas.de](http://www.bvglas.de)

Container Glass Industry Association – [www.bvglas.de](http://www.bvglas.de)

Plastic Processing Industry Association – [www.gkv.de](http://www.gkv.de)

Plastic Packages and Packaging Foils Industry Association – [www.gkv.de](http://www.gkv.de)

Plastic Packaging and Plastic Films Industry Association –

[www.kunststoffverpackungen.de](http://www.kunststoffverpackungen.de)

Aluminium Processing Industry Association – [www.aluinfo.de](http://www.aluinfo.de)

German Machinery and Plant Manufacturers Association – [www.vdma.de](http://www.vdma.de)

## **For More Information**

Mr. Klaus Jonas  
Commercial Specialist  
American Consulate General  
U.S. Commercial Service  
Willi-Becker-Allee 10  
40227 Düsseldorf  
Tel: +49-211-737 767 50  
Fax: +49-211-737 767 67  
E-mail: Klaus.Jonas@mail.doc.gov

The U.S. Commercial Service Germany can be contacted via e-mail at: [frankfurt.office.box@mail.doc.gov](mailto:frankfurt.office.box@mail.doc.gov), website: <http://www.buyusa.gov/germany/en/>.

You can locate your nearest U.S. Export Assistance Center, as well as Commercial Service offices overseas by visiting [www.buyusa.gov](http://www.buyusa.gov).

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